



SWAN HILLS

Municipal land use by-law and FireSmart provisions

By Esther Lambert

Source: Town of Swan Hills Facebook Page

THE SCIENCE

Many communities include wildfire risk reduction measures in local development permit regulations that apply to new construction and they pursue a variety of approaches to inform and encourage action by existing property owners. A concern is that most existing property owners fail to act. The best outreach and awareness programs continue to result in some ongoing community vulnerability to fire. Wind can blow embers into the community and the embers may land on a vulnerable property, introducing fire into the community. This results in loss for existing homes that did not introduce protective measures and also increases the risk that fire will damage those that did invest in protection.

Swan Hills is a pioneer in the application of local by-laws to reduce wildfire risk for new and existing homes. Landscaping requirements for new homes also apply to existing properties. The greatest attention, as set out by FireSmart, focuses on the zone closest to structures. It is important to undertake vegetation management within 10 metres of a building to create a fuel-free zone to protect communities against wildfires. Progressive communities seek to build on awareness efforts by also implementing and enforcing regulations that apply to every property in the community.

THE TRIGGER

Swan Hills has a population of 1,300 people and is located in Northern Alberta in Big Lakes County. While its location among boreal and sub-forests makes it home to unique flora and fauna, this also puts it in a very high wildfire risk zone. Being surrounded by older growth spruce and pine, there have been wildfires in the past. In 1998, the town was evacuated because of an encroaching fire. Although the fire did not enter the town, it came close enough that evacuation orders were activated. Knowledge of this threat prompted Council to add a FireSmart component to the land use by-law in 2012, to include requirements that all property owners must take simple cost-effective actions to reduce their risk of fire damage. The combined action by all property owners enhances the level of protection for the community.

THE APPROACH

The Town worked with experts from FireSmart to understand what would be involved in making a property safer and then it considered what would be reasonable to ask existing homeowners to do that would not be too onerous. For homeowners geared towards protection of their homes, risk reducing action involves reducing flammable vegetation and piling lumber, limiting these to at least 10 m away from structures. The 10-metre requirement is recommended by FireSmart experts. Also, in the by-law every resident is required to have a house number clearly displayed to facilitate fire response to the home. Other requirements include removing or replacing flammable fuel, trimming conifer limbs to two metres from ground level, restricting grasses to 10 cm or less, and adhering to roofing materials restrictions to promote fire-resistant shingles. All required



Figure 5: Swan Hills works closely with provincial wildfire firefighters, engaging in, not only cross-training to learn techniques for dealing with wildland fires, but also in controlled burns in Swan Hills. (Source: Town of Swan Hills)

landscaping must meet FireSmart standards.

These are requirements for new and existing property owners to reduce the risk of fire entering and spreading throughout the community. Through public hearings and other engagement efforts, the Town works with communities to educate property owners in hopes of effecting behaviour change. The public is made more aware of the FireSmart program, why it is important and what role property owners can play.

Swan Hills works closely with provincial wildfire firefighters, engaging in, not only cross-training to learn techniques for dealing with wildland fires, but also in controlled burns in Swan Hills. The Town also works with the Alberta Ministry of Agriculture and Forestry with which it has a mutual aid agreement whereby reduction burns are conducted together. The Ministry also does educational sessions for the public.

Furthermore, the Town of Swan Hills applies to the Forest Resource Improvement Association of Alberta for grants to carry out FireSmarting projects around the community, including thinning out of forest areas and cleaning up brush. These fairly large projects are done every year and FireSmart guidelines are followed when carrying out these projects. All of these actions support a wildfire mitigation strategy that the Town has been working on in conjunction with Agriculture and Forestry and with the help of FireSmart experts. The strategy focuses on the seven disciplines

recommended by FireSmart: education, emergency planning, vegetation management, legislation, development, interagency cooperation and cross-training.

THE OUTCOME

Research published by the Institute for Catastrophic Loss Reduction found that the 2012 by-law for Swan Hills was likely the first in Canada to require fire resilient roofing for all new and existing buildings in the community. The by-law was also the first to require all property owners undertake vegetation management within 10 metres of a building. This included requirements that flammable forest vegetation be removed, conifer limbs be removed to a minimum height of two metres, annual grasses be mowed to 10 cm or less and no combustible piles of firewood or lumber be allowed. These requirements have been in place for almost 30 years and serve to build community awareness that everyone can contribute to reducing the risk of loss from wildfire. The community moved beyond encouraging action to introduce public safety requirements, an approach that should be of interest to other communities concerned about property owners that are failing to act.

A WORD FROM SWAN HILLS

The Chief Administrative Officer of Swan Hills, Bill Lewis, says that one of the key channels through which municipalities can achieve success in implementing FireSmart requirements in their by-laws is through public education. "Get the public to understand why it may be important and put this regulation in your by-law," he advised. For instance, it is important that residents understand why certain building materials are necessary. As Mr. Lewis indicated, "We want them to understand that it will ultimately benefit them and their neighbours. It's so much easier to get people's support if they understand why these measures are being implemented!"